Work Project, presented as part of the requirements for the Award of a Master Degree in Management from the NOVA – School of Business and Economics.

THE USE OF "UNIFORM SYSTEM OF ACCOUNTS FOR THE LODGING INDUSTRY" (USALI) IN FINANCIAL REPORTING IN MADEIRA ARCHIPELAGO

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A Direct-Research Project carried out on the Master in Management Program

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6TH JANUARY, 2017

"To the untrained eye, these are "bad times". But to the leader–and warrior–these are life's richest times of growth, opportunity and possibility." Robin Sharma

Abstract

This Work Project analyses the adoption of the Uniform System of Accounts for the Lodging Industry in the lodging industry in Madeira Archipelago, one of the most important tourism destinations in Portugal.

Through a questionnaire directed to 33 financial managers of hotel establishments of various typologies and classifications, this research analyses, amongst others, the USALI's adoption rate in the region.

The findings indicate that USALI's adoption rate is rather satisfactory - 61% - and that the decision to adopt the USALI was made mainly by owners/shareholders. The main reason reported by non-adopters for rejecting it was the satisfaction with the current accounting system.

Keywords: USALI, Lodging Industry, Madeira Archipelago.

1. Introduction

This Work Project seeks to analyse the adoption of the Uniform System of Accounts for the Lodging Industry (USALI) in Madeira Archipelago, one of the most important tourism destinations in the Portuguese territory. It examines the accounting system of both four and five-stars *Estalagens* (Inns)[1], *Quintas da Madeira*[2], Resorts[3], Hotels[4] and Aparthotels[5] in

[1] A type of hotel establishment that also provides food and beverage services/products and it is located in the country side or highways. They are usually more rustic.
[2] Are a unique typology of this region, which is constituted by a typical rustic building surrounded by natural gardens and hiking tracks around. Sometimes they have agriculture fields and stables, and can be associated with Tourist Farms typology.
[3] It not only involves lodging services but also food, drink, sports, entertainment, and shopping. The size is larger than normal and usually it offers an all included tariff.
[4] Short-time paid lodging services that usually include not only food and beverage services, but also healthcare, concierge, entertainment services, depending on its category level. Despite the food and beverage services are not mandatory. Its physical evidence is a building, or an independent part of it, with homogeneous facilities and full floors with direct and exclusive access to their clients. It is constituted by at least 10 lodging units.
[5] The same as an hotel, but instead of the usual hotel room it offers apartments rooms with kitchen. It usually has restaurant and housekeeping services. It is also constituted by at least 10 lodging units.

Madeira Archipelago. Where we can find a unique type of hotel establishment, which is considered an interesting region to study. The universe comprises 106 hotel[6] units taken from an initial universe of 156[7] hotel establishments, including Hotels, Aparthotels, *Apartamentos Turísticos* (Tourist Apartments), Resorts, *Pousadas (Lodging Houses)*, *Estalagens* (Inns), *Quintas da Madeira* and *Pensões* (Boarding Houses), (DREM, 2016). These typologies may assume a classification that may vary from one to five stars[8]. The final sample was reduced to 33 hotel units; therefore, the response rate is 31%.

Previous research concentrates in countries/regions whose citizens most travel as tourists (UK, USA and Scandinavia) rather than in countries that actually receive tourists such as South Europe and America, (Makrigiannakis and Soteriades, 2007).

The hotel industry complexity (mix of services, production and commercialization of products) and service specificities, such as intangibility, inseparability, perishability and heterogeneity; require a distinctive accounting system such as the USALI. As Lamelas (2004) underlines, USALI's system deals with financial information per department, aligned with the organizational structure of an hotel. Carvalho (2009) studied the implementation of the USALI's in a real hotel comparing the characteristics of the system actually in use with the theorical model. Santos *et al.* (2015), investigated the influencial factors of the decision to adopt the USALI, but do not mention USALI's adoption rate.

The relevance of this topic comes from the awareness regarding the current state of development of management accounting systems in Portuguese hotels. The management accounting practices, specifically in relation to the adoption of the USALI, of the hotels in

[6] In the development of the exposed work project, the hotel designation will be used as a generalization of all kinds of typologies present in the sample that diverge from hotel itself, such as *Estalagens*/Inns, *Quintas da Madeira*, Resorts and Aparthotels.
[7] Some hotel establishments with certain typologies and classifications were disregarded from the initial universe, such as Hostels, Tourist Apartments, *Pensões*, *Pousadas* and every hotel establishment with less than 4-stars'. The reasoning is explained in the Methodology Chapter.
[8] Despite nowadays, in Portugal, there is no longer the legal obligation to discriminating the stars' classification of the hotel establishment, stated by the Ordinance Nr. 309/2015. This change was made about one year ago. It establishes that a project may choose not to include the typology system with stars' classification comply with the demanded standards for medium classified units, in order to keep the national quality of hotel establishments.

Madeira Archipelago region were not yet studied. This study seeks to contribute and add value to current research, since it deepens its investigation in Portugal, and analyses one unstudied relevant tourism region.

The Work Project proceeds as follows. Section 2 presents a brief description of the Madeira Archipelago hospitality industry. Section 3 reviews the previous normative literature in line with USALI's description. Section 4 examines the previous normative studies about hospitality practices regarding USALI's usage. Section 5 describes the methodology, the sample and data, and twigs into the research questions. Section 6 presents and discusses the findings. Finally, Section 7 presents the conclusions and directions for future research.

2. Hospitality Industry Overview - Madeira Archipelago

This economic activity[9] is one of the most important worldwide, one of the few that kept showing growth in spite of the recent economic crises. Portugal is not an exception, as well as Madeira Archipelago - the Pearl of the Atlantic, ranking 13[th] as the best island destinations worldwide (OJE, 2016).

Madeira holds the largest hotel establishment in terms of the quantity of rooms offered per unit (Deloitte, 2015), and its contribution to the regional Gross Domestic Product (GDP) is between 20% and 25%, (INE, 2011). In this region, there is one hotel establishment per each five square km[10], and it is the region with the second highest Revenues per Available Rooms (RevPAR) of 35.82€, Average Price per Room (APR) of 53.06€ and Occupancy Rate (76.5%) in Portugal.

In Madeira Island, there are 71 Hotels, 32 Aparthotels, 11 Tourist Apartments, one *Pousada*, one Resort, eight *Estalagens*, 24 *Pensões* and eight *Quintas da Madeira* – Appendix - III, Table 1, (DREM, 2016).

[9] The European Community Economic Activity (CEA) Code is 55, Sector I.
[10] There are 156 hotels, (INE, 2016), for 783,2 km (740,7 for Madeira Island and 42,5 for Porto Santo Island), (Wikipedia, 2016). Therefore, there is 0,2 hotel establishments per km2, which means there is one unit per each 5 square km.

Usually hotels' dimension is characterised by its number of rooms, beds or employees. Regarding management status, hotels can be Independent, belong to a Portuguese Hotel Chain or to an International Hotel Chain[11]. They may also assume different existing operation types[12] such as Owner, Lease, Management Contract and Franchise Agreement. Considering cost structure, costs may be classified as direct[13] or indirect costs[14]. Players must decide how allocate indirect/fixed costs.

The main competitor's information is present on the Appendix IV - Table 9, (INE, 2016).

As for the characterization of the lodging industry[15] in Portugal, it has begun with the Decree Law Nr. 39/2008[16]. This law establishes how to characterize an hotel and settles its classification system by typologies and stars. The stars classification measures quality, dimension and services offered , according to a scale ranging from one to five stars. This way, the law safeguards the average national offering quality.

Since this industry's operation is complex, USALI's usage is strongly recommended by many authors, therefore, it will be one of the major object of study.

3. Uniform System of Accounts for the Lodging Industry

The USALI is a specific accounting standard and financial reporting system for the lodging business. Its first edition was published in 1926 by the Hotel Association of New York City (HANYC; AH&LA 1926), and it has been updated regularly over the last 90 years, being

[11] Independent - when the hotel is not part of a hotel group, it is an individual business; Portuguese Hotel Chain - national hotel chain; International Hotel Chain - foreign hotel group.

[12] Owner - when an investor buys and manages its business; Lease - when the investor rents the facility and has it under his own management; Management Contract - when the investor holds the business but it is under management of another entity; Franchise agreement - happens when a certain brand is replicated by several pre-established standards, which must be followed strictly besides the franchisee needs to pay annual royalties to the franchisor.

[13] Directly associated with the activity. In this case it is easy to assess that a certain cost belongs to a certain department or activity because it is directly associated (*e.g.*: the marketing employee salary that belongs to the marketing department).

[14] Costs that are common to more than one department or activity. They are difficult to allocate to each activity and there are many types of allocation systems (e.g.: percentage – the size of the department will define how much should be assigned to it). Every allocation system has its advantages and disadvantages and there is no perfect system, which makes it difficult for managers.

[15] It comprises every touristy business seeks to offer temporary lodgement and other additional support services/activities with or without food and beverage services, working in a daily location of its rooms.

[16] Part of the Financial Accounting and Reporting Framework in Portugal. This document was amended by Decree Law Nr. 228/2009 and Decree Law Nr. 14/2014 in order to include new types of hotel establishments such as temporary lodging that did not correspond with the legal requirements of being a Touristy enterprise.

currently in the 11th edition. It consists on a model of cost accounting for the lodging industry which is largely used worldwide. It is a management tool for reporting information, that affects decisional processes, with models to assign costs, and an evaluation tool, allowing the comparison of findings amongst hotels within a group and competitors in the industry.

The USALI's manual describes and explains in detail how to implement USALI's system and in what it consists on. It outlines specific accounting standards for hotels, such as financial statements formats (Balance sheet, Profit and Loss Statement, Statement of Income, Statement of Owners' Equity, Statement of Cash flows, Notes to the Financial Statements), statistics, and ratios (REVPar, GOPPar, ADR, etc.). Its objective is to provide standardised accounting information with emphasis on results by department/activity (Liguori and Gray, 1995). Until 1996, it was known as "Uniform System of Accounts for Hotels" (USAH). From the 9th edition onwards, its name changed to what it is today due to the appearance of many different typologies of units, other than hotels (Planas 2004).

The need for a constant update of this system comes from the need to keep up with changes in industry practice. Namely, technology development and improvement; cluster services, i.e. new servers needs; the need to maintain sustainability; consider the new distribution channels that are constantly appearing; input the globalization changing and influences into the accounting system; improve ratio analysis; come up with new important indicators and update the system with new terminologies; and finally, keep up with changes in accounting practice, i.e. IFRS[17] and GAAP[18], (HOSPA 2016).

The USALI structure sets the guidelines for the distribution of sales and costs in each department. Regarding costs, it is based on *direct costing* criteria, this means that only direct costs are allocated to departments. These costs have a direct impact on each operational department (those that generate income). As for indirect costs (common costs) to different

[17] International Financial Reporting Standards.
[18] US Generally Accepted Accounting Principles.

departments, such Administrative and General, Information and Telecommunications Systems, Sales and Marketing, Property Operation and Maintenance and Utilities) – these are added together in a pool of costs called Functional departments. Where they are grouped under *Undistributed Operating Expenses* (that include expenses departments) – Appendix VI.

The usage of USALI does not impose a certain dimension of its user, hence any hotel unit regardless its size and characteristics may adopt it. In Portugal, various Accounting Standards[19] are in force, and companies should apply one or the other according to their characteristics. There is also a size classification system[20] for enterprises, with reference to the decree-law Nr. 98/2915, that can be Micro, Small, Medium and Large size. In terms of sales, the dimension of the sample was stratified in seven levels between 250K€ and more than 10M€. Hotel groups are obliged, by law, to consolidate accounts. The majority of the lodging units work 24 hours per day all year round, but some might close for a certain time-period due to seasonality.

Normative research about USALI points out some possible improvements and recommends how the lodging industry in general should act when facing a specific situation, and includes a plan to carry out the necessary improvements. It assumes the following forms: explanatory, descriptive or critical – Appendix VII, Table 10.

Geller and Schmidgall (1980) suggest techniques to refine financial information, focusing on the cost allocation system and its importance in the decision making processes. Chin and Barney (1995) authored a guide on best accounting practice in hotels. They argue that the assessment of business performance in hotels becomes significantly easier by using consistent performance measures, such as the USALI. Liguori and Gray (1995) outline how the USALI system works. Rojas and Samper (2002) analysed the characteristics of USALI, its origins,

[19] Portuguese Accounts Standards for Micro Enterprises; SNC-PE (SNC to medium enterprises); SNC (Portuguese version of IAS/IFRS); IAS/IFRS (for international reporting).

[20] Micro size has up to 350K€ of total assets, up to 700K€ of net value sales and up to 10 employees; Small size has up to 4M€ of total assets, up to 8M € of net value sales and up to 50 employees; Medium size 20M€ of total assets, up to 40M € of net value sales and up to 250 employees; Large size exceeds 2 of 3 limits imposed for the medium size enterprise classification.

structure, ratios generated by the model and compare the advantages versus drawbacks of its application. Moreover, they underline that the decision-making process is positively supported by the USALI's application.

Jagels (2006) book shows how to maximize profits and minimize costs by having a proper financial management.

Faria (2007) studied accounting in the Portuguese hospitality industry in an historical perspective. This can be considered to be both empirical and normative research. Regarding the normative characteristics of this industry, the author provides a detailed review of previous research in the area of hospitality accounting.

Persic *et al.* (2010) studied the performance benchmarking tools in the Croatian hotels, and found that the quality of financial information for internal users is higher when they are prepared on the basis of IFRS 8 – Operating Segments and USALI standards. Croatia has more than 20 years of segment reporting implementation according to USALI standards.

4. Literature Review

Empirical studies on the USALI came to light from 1999 onwards. There are several empirical studies[21] regarding Hospitality Practices, and in special the USALI's application, in Portugal and various countries – Appendix VIII, Table 11.

Kwansa and Schmidgall (1999) conducted a survey on 112 US members of the HFTP[22]. Based on a 22% response rate, they found that the USALI's adoption rate in the USA was 78%.

A study by Planas (2004) found a 63% rate of USALI's adoption in Spain. They surveyed 27 hotel chains and independent hotels and the response rate was 77.1%.

[21] An empirical study is based in direct and indirect observation or experience, the evidence obtained can be analysed quantitatively through questionnaires and surveys or qualitatively by interviews. The questions raised from it are essentially about how enterprises put in practice some practices or systems and what is their opinion about the topic in analysis.

[22] Hospitality Financial & Technology Professionals (HFTP) is a global non-profit association devoted to solving industry problems and facilitating education.

A case study by Lamelas (2004) analyses how a specific Portuguese hotel chain, with nine units, applies USALI and to what extent. It was found that there is a full implementation of USALI.

The Office of Studies and Statistics from AHP[23] (2006) developed a study that concluded about USALI's adoption rate in Portugal, with a sample of 220 units from three to five-stars. Overall, it shows a 20% of USALI's usage in Portugal and 50% in Madeira Archipelago.

Pavlatos and Paggios (2007) found that USALI's adoption rate in Greece is 11.8%, which 53.3% were multinational hotel groups. These findings were based on a questionnaire answered by 85 Hotel financial managers, with a response rate of 58%.

Later, in Portugal, Cruz (2007) developed a case study on an international joint venture between a Portuguese enterprise and an international hotel chain with 30 hotel units located in Portugal, providing an interpretive perspective for performance measurement practices in a globalized setting in the hospitality industry. It was concluded that this international hotel chain uses the USALI's system.

Additionally, also in Portugal, Carvalho (2009) developed a case study that analyses how USALI was applied in Hotel *Baía* and how it was adapted to its own managing style. The author found the USALI to be fully implemented at this three stars' hotel.

Santos et al. (2010) surveyed 35 Hotel units located in Portugal (with different locations, types and classifications) and concluded that there is an USALI's adoption rate of 43%.

Ferreira (2012) studied the implementation of USALI in a Portuguese hotel group – Porto Bay Group. The author describes how the hotel group applies USALI and compares theory *versus* practice of this system. On evaluating the satisfaction of decision makers in relation to this system, the author refers to a high level of satisfaction with the USALI.

[23] *Associação da Hotelaria de Portugal*.

A Portuguese-based study developed by Faria (2012) and Faria *et al.* (2015), focused in the Algarve region and concludes that the USALI is used by 50% of the hotel units. The sample was 66 four and five-stars Hotels and Apart hotels, corresponding to a response rate of 74.2%. Additionally, this research exposes some advantages and drawbacks in USALI's usage, as well as reasons for (not) adopting it, who takes the decision to adopt the USALI and its importance in relation to other standards. It also makes reference to cost allocation issues.

Kosarkoska and Mirsheska (2012), in Republic of Macedonia, analysed how USALI is used as Cost Management (CM) tool and its impact on making comparable standardised financial reports within the hospitality industry. Findings point that this region is not familiar with USALI (69.2%), but there is a high willingness to learn this system (69%).

Santos *et al.* (2015), based on a sample of 61 hotels found that the USALI's adoption rate is related to the number of employees; to the resistance of both top/head office management changes and departamental ones; and also the hierarchical levels of decision-making processes.

The literature review shows that there are no consistent findings concerning the use of USALI by hotels in Portugal. Regarding the regional market characteristics, it is a fact that Madeira Island suffers less seasonality impact than Algarve region, which justifies further investigation. Moreover, there are no studies assessing USALI's usage in Madeira so far, apart from the one developed by AHP in 2006.

5. Methodology, Sample and Data

The purpose of this Work Project is to analyse the use of the USALI in hotel establishments located in the Madeira Archipelago. It is an exploratory research since it has never been done before and collects primary data, encompassing some interest. In line with that, the following research questions are addressed:

RQ 1: *Who decided to apply the current Accounting System in the hotel unit?*

RQ 2: *Does your hotel unit use Management Accounting in order to take management decisions?*

RQ 3: *What type of software system is used in accounting (Management versus Financial Accounting)?*

RQ 4: *Which software application is used to produce accounting information?*

RQ 5: *Does your hotel unit use the USALI, to what extent? If not, why? Who made this decision?*

RQ 6: *In your opinion, which are the main advantages and disadvantages of the USALI usage?*

RQ 7: *Do you agree with the allocation of indirect costs to the Revenue Departments for different purposes?*

RQ 8: *How do you rate the importance of each of the following standards/tools to the financial management of the hotel?*

RQ 9: *Is the use of USALI related to the hotel establishments characteristics?*

In order to answer the research questions, a structured questionnaire (Appendix I), was designed. Before the questionnaire launch, a pre-test[24] was run, destined to both supervisors of the present work project and some hotel units, in order to access its validity.

The respondents were financial managers[25] or individuals who had the responsibility for accounting and finance departments or with significant controller functions, such as the financial manager or a registered auditor[26] of the units in analysis. The data was collected between July and December 2016 and the contacts with companies were made by phone calls and e-mails obtained from hotels' websites. Therefore, the methodology used was mainly

[24] Doing a pre-test enables its maker understand which questions are difficult to answer and improve them, disregard some dismissible questions, estimating a response rate, estimating the length of time to complete the survey, improve the survey.

[25] This was the selected target due to their real awareness of how the units are organized in terms of its accounting system and overall questions addressed in the questionnaire.

[26] In Portugal the accounting profession is named *Contabilista Certificado* (CC) and they are registered in their official order, which is named Order of Certified Accountants *Ordem dos Contabilistas Certificados*.

quantitative[27] (questionnaire) and partially qualitative[28] due to the phone calls that enabled obtaining further relevant information.

Questionnaire

The questionnaire is organised in three sections and includes 30 questions, where the main variables of the research were sort out. The first section (15 questions) seeks to characterize the sample, based on specific characteristics such as the operation type, the company management status, the number of rooms/beds/employees, the dimension of the Hotel/Group, the volume of sales, the revenue mix, the cost structure (direct/indirect costs), the accounting standards in practice, consolidated accounts practice and the operation period. The second section (four questions) relates to the respondent's characterization, and the variables are the job position, level of study, studies' degree type, rate of decision-making power to take financial decisions. The third section (11 questions) includes variables that seek to characterize the accounting system, it questions about who made the decision to follow the current management accounting system; if there is an integrated software for management and financial accounting; type of software used to produce accounting information; USALI's adoption; reasons for USALI's non-adoption; to what extent is USALI applied; who made the decision of adopting it; USALI's advantages and disadvantages; respondent's perception regarding the allocation of indirect costs; the importance of various standards/tools to the financial management of the hotel.

The questions are both multiple choice[29] and open clause[30]. As expected, the answers to closed-ended questions shown a higher response rate (100%) than the open-ended ones (42%), where the respondents have to develop an idea, rather than selecting a given option.

[27] This kind of method is standardized, its effective and easily compared with other findings in previous similar studies, it enables researchers to summarize vast sources of data, is reliable and valid. On the other hand, it may cause structural bias, they lack a detailed narrative of human perception and that is why this work project also comprises qualitative method.
[28] This method goes beyond counting and ranking, it records and analyses feelings behaviours and attitudes, thus it covers a depth level of detail. Although it is more difficult to access, to demonstrate and its interpretation and analysis is time-consuming. When used alongside quantitative data, helps avoid prejudgments.

Sample

Despite the entire market offer in the Madeira Archipelago totals 156 units, this study is only focused on *Estalagens*, *Quintas da Madeira*, 5-star and 4-star Hotels and Aparthotels in the region. Thus, the universe is 106 units (Appendix X – Table 14). Exclusions from the initial universe were made based on several criteria, namely the disregard of Hostels, Tourist Apartments, *Pensões*, *Pousadas* and every hotel establishment with less than 4-stars' classification in order to stratify the sample and also for comparability purposes with other international studies (Mia and Patiar 2001; Makrigiannakis and Soteriades, 2007; Kosarkoska and Mirsheska, 2012) and with the Portuguese study conducted by Faria (2012).

The sample comprises 33 hotel establishments; hence, the response rate is 31%. The fact that the final sample is a result of the units that answered the questionnaire and not a result of random selection of the original sample, it may mean that the sample is not sufficiently representative of the original sample or universe. Therefore, it is expected that this sample is sufficiently representative with a low level of error, which is impossible to compute since the study did not resort to the usage of probabilities, normally used with random selection.

Data

Table 1 provides a description of the main characteristics of the final sample (33 hotel units).

[29] The Likert-type scale was used with an interval scale of 5-point categories of response. If a 4-point was used, for instance, the answer would tend to be positive since there would only be only one category that can receive a below average rating (Poor, Average, Good and Very Good), which would reduce the equidistance and disrupt findings. The 5-point is sufficiently complete for the effect in this case.

[30] Multiple choice questions are easier, less costly and quicker to answer, contributes to the consistency of responses, its easier to compare with others' responses or questionnaires. On the other hand, the presented option may not include the exact answer respondents want to give, may influence respondents answer, and many options may confuse respondents. The open clause questions allow an unlimited range of answers, reveals how respondents really think about the question, but they take more time to answer and there's a lack of control over length of response.

Variables of the sample		Frequencies
Typology of the hotels		**Hotels:** 15 units (45%) **Resorts:** 8 units (24%) **Aparthotels:** 2 units (6%) ***Estalagens*:** 2 units (6%) ***Quintas da Madeira:*** 6 units (18%)
Category		**Four Stars:** 22 units (67%) **Five Stars:** 11 units (33%)
Operation Type		**Owner:** 33 units (100%)
Company Management Status		**Independent:** 21 units (64%) **Portuguese Hotel Chain:** 12 units (36%)
Size of the units	Number of Rooms	**Four Stars:** 21 (MIN) to 276 (MAX); 136 (Average) **Five Stars:** 46 (MIN) to 375 (MAX); 185 (Average)
	Number of Beds	**Four Stars:** 42 (MIN) to 552 (MAX); 273 (Average) **Five Stars:** 92 (MIN) to 750 (MAX); 370 (Average)
	Number of Employees	**Four Stars:** 36 (MIN) to 125 (MAX); 92 (Average) **Five Stars:** 36 (MIN) to 215 (MAX); 99 (Average)
	Dimension (fiscal limits)	**Small:** 2 units (6%) **Medium:** 18 units (33%) **Large:** 13 units (39%)
	Volume of Sales	**500k€-1M€:** 1 unit (3%) **2,5M€-5M€:** 1 unit (3%) **5M€-1M€:** 15 units (45%) **More than 10M€:** 16 units (48%)
Revenue Mix[31]		**Accommodation:** 45% (MIN) to 72% (MAX); 58% (Average) **Food & Beverage (F&B):** 26% (MIN) 40,4% (MAX); 36% (Average) **SPA & Wellness Centre:** 0,1% (MIN) to 10% (MAX); 5% (Average) **Other[32]:** 0% (MIN) to 5% (MAX); 3,5% (Average)
Cost Structure	Indirect Costs	**Up to 35%:** 21 units (64%) **35%-45%:** 3 units (9%) **45%-55%:** 1 unit (3%) **55%-65%:** 6 units (18%) **More than 75%:** 1 unit (3%) **Not sure:** 1 unit (3%)
	Direct Costs	**Up to 35%:** 7 units (21%) **55%-65%:** 9 units (27%) **65%-75%:** 3 units (9%) **More than 75%:** 13 units (39%) **Not sure:** 1 unit (3%)
Accounting Standards followed		**Portuguese Accounting standard for Micro Enterprises:** 3 units (9%) **SNC** (Portuguese standards): 18 units (55%) **IAS/IFRS:** 12 units (36%)
Hotel Group that presents consolidated accounts (29 units of the sample belong to a hotel group)		**Yes:** 21 units belonging to 3 different hotel groups **No:** 8 units from 2 different hotel groups; one group (5 units) answered because it is not mandatory and the other (3 units) did not give a reason
Unit operating period		**All year:** 97% **Seasonally operated:** 1 unit (3%)[33]

Table 1: Characterization of the hotels in the sample per variable.

Regarding the characterization of the respondents, they were mainly hotel/group owners (55%): 21% were financial managers, 18% were group managers and only 6% were hotel managers. There were 48% technicians and 52% had a bachelor. In terms of topic of studies, 97% had a management degree, 36% a financial degree and 24% had a hospitality degree. In

[31] Some not included services were pointed out such as: Postcard, Post office Stamps, Communication, Merchandising, Hairdresser, Boutiques, Laundry, Pools and not specified services. Only seven units of the sample have these not included services and in average they contribute with 1.93% to the revenues, which in average of all the sample is reduced to 0%.

[32] Including: The Sports Facilities; Casino & Tobacco; and Other Not Included Services.

[33] This is one of the eight Resorts, Pestana Porto Santo Beach Resort & SPA. It closes from October to March due to strong low seasonality, which affects the market's offer and demand dynamics.

average, the respondents showed a moderately high power of decision (4) for both short and long-term financing activities. As for investment decisions, their power was moderately high (4) power for long-term investments and moderate (3) for short-term investments. This power level was measured by a five-point Likert Scale, a scale from one to five, where one is "very low decision-power" and five "very high decision-power".

6. Findings

Firstly, in order to answer to the research questions both univariate and bivariate data analysis were applied. Secondly, by crossing some variables/attributes with the main one (USALI's usage) it was possible to compute some correlation and association data analysis.

Who makes the decision regarding the current accounting system adoption (RQ 1)

In slightly more than half of the hotels units, the decision to apply the current accounting system was made by the financial manager (21 units; 55%). In eight units (21%) it was the head office/management company (eight units; 21%) or the Accountant (five units; 13%) that made such decision. Rarely did the software company or the external consultant company made this decision (three units, 8% and one unit, 3%, respectively.

Previous studies, such as the one made in Algarve by Faria *et al.* (2015), concluded that "other internal resources" had the main responsibility for this decision (22 units; 33.3%) and secondly, the responsible for the current accounting system (20 units; 30.3%). An external consulting firm or a software company made this decision in 5 units (7.6%) each and 13 units (20%) answered that two entities, together, decided to apply the current accounting system.

These results are not really comparable since the presented options of response diverge, apart from the software company, where the result is, in both cases, low (3% *versus* 7.6%).

Usage of management accounting to take management decisions (RQ 2)

All units use management accounting to take management decisions (33 units; 100%). There is no relevant previous research asking about this matter.

Santos et al. (2010) also concluded that managers resort to accounting information to take management decisions.

Software system used in accounting - Management versus Financial Accounting (RQ 3)

Almost all units of the sample use an integrated package for both financial and management accounting (32 units; 97%). Only one unit (3%) uses different software to produce financial and management accounting information. This is a small size enterprise in fiscal terms with a sales level of 2,5M€-5M€; nevertheless, this unit uses the USALI and separates wisely its accounting information.

As expected, Faria (2012) also concluded that hotel mainly use an integrated software.

Software used to produce accounting information (RQ 4)

The following table summarizes the present work project findings and the most similar research work done in Portugal regarding this topic.

	Present research work Sample		Faria (2012) sample	
	N	%	N	%
Excel or equivalent	15	38%	29	89.4%[34]
Oracle	9	23%	2	3%
SAP	6	15%	9	13,6%
Primavera	5	13%	10	15,2%
Sage	3	8%	3	4,5%
Epicor	1	3%	5	7,6%

Table 2: Software usage rate to produce accounting information.

Comparing to Faria (2012), the rate of both SAP and Primavera usage is identical, which are the mainly used software in both cases, excluding excel or equivalent that was not accessed as primary software on this comparative study. What is new about Faria's study is the usage of self-developed software that was also popular (10 units; 15.2%) and was not accessed in the present work project.

It was found that 3 units (9%) of the same hotel group used Excel complementary to Primavera. Another 6 units (18%) from one hotel group used both SAP and Oracle and 3 units (9%) from another hotel group used Sage and Oracle together. Regarding this, it is not

[34] Since Excel is used as complementary to other software systems, this percentage means 89.4% of the total sample use Excel and another software in parallel.

possible to conclude which software between Sage, Oracle and SAP is used as complementary to another since they both deal with similar accounting information. Consequently, further research is needed, in order to conclude if Excel is used as an alternative and overlapping/complementary to other software packages, as Faria (2012) concluded that 89.4% of the sample uses it as complementary.

USALI's usage and to what extent; Reasons for not adopting the USALI; Who made the decision to apply the USALI (RQ 5)

The majority of the units in Madeira Archipelago which answered the questionnaire use USALI (20 units; 61%) and some do not use (13 units; 39%).

Regarding previous research with higher rates of USALI's adoption we have, in Portugal, Lamelas (2004), Cruz (2007) and Carvalho (2009) all with 100% of adoption since they accessed only one hotel or hotel group; also Ferreira (2012) with 100%, which confirms this research finding since Porto Bay Group was part of both samples. In Spain, Planas (2004) with 63%, which is a very similar outcome. Finally, in the USA, Kwansa and Schmidgall (1999) with 78%, possibly due to the fact that USALI was originated in that country.

As for previous research with lower rates of USALI's adoption, in Portugal, AHP (2006) reports a 20% adoption ratio for Portugal and 51% for Madeira, which indicates a growth on the regional adoption level; also Faria (2012), in Algarve, with a rate of 50%; and Santos et al. (2010) with 43%. Additionally, in Greece, Pavlatos and Paggios (2007) obvserved an adoption rate of 11.8%, which indicates that Portugal seems to be more aware of this system than Greece.

Not all the units which adopt the USALI do it completely. While 13 units mention to use it completely (65%), another seven units (35%) do not use it in every respect. One hotel group of 6 units did not specify and the other unit said it "does not allocate some fixed costs exactly how USALI method proposes".

These findings were slightly different from those of previous studies. Faria et al. (2015) pointed that 80% of the sample uses USALI completely. Despite its adoption rate being lower (50% *versus* 62%), its full application is higher (80% *versus* 65%), which must be taken into consideration. Another study shows an even lower full application of USALI, Kwansa and Schmidgall (1999), being only 12%, which reasons could be interesting to study on further research.

The reasons of non adoption are mainly two: the satisfaction with the current system (ten units; 77%) and because it is not mandatory (three units; 23%).

Faria *et al.* (2015) also found the same two motivations in the hotels in Algarve that did not adopt the USALI. However, not being mandatory is the main reason for the non adoption of USALI there (14; 42.9%) since the satisfaction with the current system was 8 units (25%).

The individuals that made the decision to adopt the USALI's are mainly the owner(s)/shareholders (18 units out of 20[35]; 80%) and seldom the hotel general manager, financial manager/controller and head office/management company, all presenting one unit (5%) each.

On the contrary, Faria et al. (2015) points that the owner/shareholders rarely took this decision (one unit; 3%) and it is the head office who usually makes this decision (15 units; 45.5%) followed by the financial manager (8 units; 24.2%). The remaining responsibles present a decision rate of 9.1%; 3 units each. In the same line of thought, Kwansa and Schmidgall (1999), concluded that the decisions are mainly made at a corporate level (50.9%) and also by a financial executive (25%).

Advantages and Disadvantages of the USALI usage (RQ 6)

The findings show that the units that do not use the USALI do not indicate any advantage or disadvantage. Table 3 summarizes the answers. It is concluded that these reasons are also

[35] Because only 20 units use USALI.

quoted in the literature, namely by Rojer and Samper (2002) and HANYC; AH&LA (1926), who both mention the ease of utilization, uniformity and comparability.

Advantages
• “It allows its users to analyse the company by business units or departments”
• “It enables comparison amongst competitors”
• “Has an easy methodology”
• “Its structure is globally accepted”
• “Constitutes a good source of benchmarking, which is accurately adapted to the hospitality industry”
• “It is an accounting system specially targeted to the hospitality industry”

Table 3: Advantages of using USALI.

Disadvantages were pointed out by two units who reported that USALI has a “weak level of compatibility with the SNC system” and there is “lack of knowledge and acceptance from accountants”, and also some “subjectivity in some criteria”. These two units have independent management, and are small size enterprises, with a turnover between 5M€ and 10M€.

The overall opinions seem to be more positive than negative since much more advantages were indicated. This leads to the conclusion that the units that adopt the USALI are satisfied. All the respondents that gave feedback on this question use USALI in parallel with financial accounting (SNC or IAS/IFRS). Their annual volume of sales is always higher than 2,5M€. Their main core software (ERP) to produce accounting information is usually Excel or equivalent, and only one unit uses Epicor and another one uses Primavera.

Allocation of indirect costs to the Revenue Departments by different purposes (RQ 7)

These variables (Table 5) measure the utility of allocation of indirect costs to the revenue pool centres for four purposes referred by the USALI’s 9th edition, (HANYC, 1996). The evaluation is measured by a scale of 5-points, where one means “totally disagree” and five means “totally agree”.

Faria (2012) surveyed the opinion of 16 respondents from the 33 units that use the USALI. Comparing the answers obtained with those of the present study, it is possible to observe that there is a high discrepancy between the answers of the variable I, having similar values for the variable II and IV and slightly different for the variable III (1 point of difference).

In both studies, the variables that show a higher weight are variables II and III – Table 5. Notice that in the present study some answers never occurred, consequently were disregarded from the following frequencies table.

	Observed value	N	%	Faria *et al.* (2015)
I. To assess the profitability of a department	1	12	36%	6%
	2	1	3%	19%
	3	6	18%	25%
	4	6	18%	19%
	5	8	24%	31%
II. To determine the prices for services and goods	2	1	3%	25%
	3	8	24%	25%
	4	5	15%	31%
	5	19	58%	6%
III. To consider whether outsourcing for services is practicable	1	1	3%	6%
	3	7	21%	25%
	4	5	15%	25%
	5	20	61%	19%
IV. To provide departmental managers with more incentive to monitor the costs of service departments	3	19	58%	25%
	4	6	18%	25%
	5	8	24%	19%

Table 4: The allocation of indirect costs to the Revenue Departments by different purposes.

Standards/tools importance rate for the financial management of the hotel unit (RQ 8)

The evaluation of each standard/tool is measured by a Likert scale of 5-points, where one is "not important at all" and five is "very important". Table 6 exposes the frequency of response of each scale point answered by the selected sample. In average, it is verified that for Variable I, the majority of the sample believes this standard to be very important (5), verified for 42% of the sample. As for Variable II, is it not important at all (1) for 36%[36]. Regarding Variable III, it is very important (5), for 39% of the sample, presenting the same reason pointed out for Variable II. Finally, Variable IV also ranks as very important (5), for 64% of the sample.

In line with the findings of Faria *et al.* (2015), Variable IV - IRC, is the most important standard (64% versus 49%), which might be influenced by the Portuguese law enforcement. In the present study, the second most important variable is USALI (14 units; 42%) but in the Farias' study is SNC (47%), which makes sense since SNC is mandatory by law as the tax

[36] This finding makes no sense since SNC is mandatory and previous literature also contradicts this this outcome. But it is explained by the fact that these 12 units that answered this belong to the same hotel group, which uses IAS/IFRS and this is the reason why SNC is unvalued to them.

regulation. Followed by IAS /IFRS, that were highly ranked by 13 units (39%) and 20% in the comparative study. USALI, whose usage is not mandatory does not appear to be important (1) when ranked by the sample of Faria *et al.* (2015) study.

	Observed value	N	%	Faria *et al.* (2015)
I. USALI	1	11	33%	40%
	3	1	3%	3%
	4	7	21%	14%
	5	14	42%	37%
II. Portuguese Accounting Standards (SNC)	1	12	36%	3%
	3	3	9%	20%
	4	9	27%	47%
	5	9	27%	20%
III. International Accounting Standards/ International Financial reporting Accounting Standards (IAS/IFRS)	1	9	27%	3%
	2	7	21%	11%
	3	4	12%	20%
	5	13	39%	20%
IV. Portuguese Tax Regulation (*Código do* IRC and its amendments)	3	4	12%	9%
	4	8	24%	49%
	5	21	64%	29%

Table 5: Response frequencies.

However, this Work Project's findings are aligned with Kwansa and Schmidgall (1999), who surveyed the role of the USALI in the financial management of the hotels in USA, and concluded that, there, USALI is more important than the FASB standards, but less than *Internal Revenue Service Code.*

Is the use of USALI related to the characteristics of the hotel establishments? (RQ 9)

The typology that mostly applies USALI is Hotels, followed by Resorts, then Aparthotels and *Estalagens*. From these last three typologies, the sample shows to be consistent in always using USALI, which does not happen with hotels, where the adoption ratio is 62.5%. On the other hand, none of *Quintas da Madeira* uses USALI, like Table shows.

Faria *et al.* (2015) concluded that the use of USALI implies a higher or lower number of employees, but not necessarily other proxies for dimension.

Typology of the hotels / USALI's adoption	Hotels	Resorts	Aparthotels	*Estalagens*	*Quintas da Madeira*	TOTAL
Uses USALI	10	8	2	2	0	22
Does not use USALI	6	0	0	0	6	12
TOTAL	16	8	2	2	6	33

Table 6: USALI's adoption per typology.

In terms of classification, usually the four star units use the USALI, but the five star units in the sample are half of the 4-stars, which justifies this outcome. In both cases, the majority of units use USALI and in both cases the proportion of usage is exactly the same: 64%[37] use it and 36% not use the USALI. Nonetheless, a previous study (Lamelas, 2011) mentions that USALI's usage may vary with category (hotels in lower categories use less the USALI).

Classification of the hotels / USALI's adoption	4-stars	5-stars	TOTAL
Uses USALI	14	7	21
Does not use USALI	8	4	12
TOTAL	22	11	33

Table 7: USALI's adoption per Classification.

A previous study done by AHP (2006) reported that 18% of 4-stars hotel units and 33% of 5-stars hotel units use USALI in Madeira Archipelago. By comparing with the present research, a positive difference is observed, which means both classifications are now adopting USALI in a higher rate than before (2006 *versus* 2016 adoption rates). These outcomes also mean that Madeira is evolving at a great pace in terms of quality of management and its awareness of relevant international accounting systems.

Table 9 shows the findings for the variable management status, showing that all the units that belong to a Portuguese Hotel Chain use USALI with no exception, but note that these values come from the same hotel group, comprising 12 units, which may disrupt the findings or lead to false conclusions. This to say that being an hotel chain is not necessarily correlated with USALI's usage. In relation to the independent hotels, 43% adopt the USALI.

Management status / USALI's adoption	Independent	Portuguese Hotel Chain	TOTAL
Uses USALI	9	12	21
Does not use USALI	12	0	12
TOTAL	21	12	33

Table 8: USALI's usage per Management Status.

Furthermore, Table 10 shows that there is a positive tendency for both small and large companies regarding USALI's usage. The adoption rate of small businesses is 100%, of

[37] For 4-stars we have that 14 out of 22 use USALI (64%) and for 5-stars we have that 7 out of 11 use USALI (64%); Regarding the non usage rate, for the 4-stars hotel units, 8 out of 22 does not use USALI (36%) and for the 5-stars, 4 out of 11 does not use USALI (36%).

medium companies is 39% and of large ones is 92%. However, a chi-test ran in parallel shows there is no association between sales volume and USALI's adoption.

USALI's adoption \ Dimension (fiscal limits)	Small	Medium	Large	TOTAL
Uses USALI	2	7	12	21
Does not use USALI	0	11	1	12
TOTAL	2	18	13	33

Table 9: USALI's usage per Company Size (Fiscal Limits).

In addition, Table 11 shows the frequencies of USALI's usage per sales volume. Hotels with larger level of sales (greater than 5M€) tend to use USALI (65%) and hotels with smaller level of sales (less than 5M€) tend not to use USALI (50% of them use; ½ units). Again, it is not veracious to conclude that USALI's adoption is dependent on the sales volume, which was proved by chi-test ran in parallel.

USALI's adoption \ Sales Volume	500K-1M€	2,5M-5M€	5M-10M€	More than 10M€	TOTAL
Uses USALI	0	1	7	13	22
Does not use USALI	1	0	8	3	11
TOTAL	1	1	15	16	33

Table 10: USALI's usage per Sales Volume.

Regarding the relation between the usage of USALI and another accounting standard, Table 12, it is possible to observe that the units that use IAS/IFRS also use USALI, but these 12 units belong to the same hotel group, so no association conclusion can be made. The units that use SNC either use or not USALI (50% to each option), which again does not imply a relevant association relationship.

USALI's adoption \ Accounting Standards	Portuguese Accounting standard for Micro Enterprises	SNC	IAS/IFRS	TOTAL
Uses USALI	0	9	12	21
Does not use USALI	3	9	0	12
TOTAL	3	18	12	33

Table 11: Usage of USALI per Accounting Standard.

By analysing Table 13, the units that use Excel or equivalent seem to have a tendency to use USALI (13 units; 48%) and the ones that use SAP and Oracle also use USALI 22% of the times in each case, equally. Although, it is not possible to conclude regarding that tendency's veracity, since 12 units belong to the same hotel group, which disrupt the data. Besides, the chi-test findings do not show any association between the variables.

Accounting Software / USALI's adoption	Excel or equivalent	Primavera	SAP	Oracle	Epicor	TOTAL
Uses USALI	13	1	6	6	1	27
Does not use USALI	2	4	0	3	0	9
TOTAL	15	5	6	9	1	36

Table 12: Usage of USALI per Accounting information software.

By resorting to Contingency Tables, which enabled the chi-test, it can be concluded that there is no association between USALI's usage and the variables mentioned above. The obtained data does not allow relevant statistic analysis due to some no answers (zeros on the frequencies tables) and disruptive outcomes from hotel groups. The only variable that allowed analysis was the sales volume, where there is no association with USALI's usage, Appendix XII – Table 6, since the p-value is 0,04, (smaller than the significance level of 0,5).

Finally, some questions of the questionnaire were never answered by respondents[38], which means that the final sample never assumes those characteristics. For further research these option may be removed from the questionnaire.

7. Conclusion

The purpose of this Work Project was to get insights on the use of the "Uniform System of Accounts for the Lodging Industry" (USALI), a specific reporting system developed for the lodging industry, in selected hotel establishments in the Madeira Archipelago region. This region has proved its value by contributing substantially for the growth of both tourism and hospitality industry in Portugal, which justifies the importance of the study along with the fact that such study was never done for this region.

The USALI is one of the most used accounting system worldwide and the trend to use it is increasingly high.

The sample comprised 33 hotel units (out of a universe of 106 units) of four and five stars with the following tipologies: *Estalagens*, *Quintas da Madeira*, Hotels and Apart-hotels. The

[38] On the first part, question 1.4., options b), c), d), e) and f); question 1.5., option c); question 1.9., option a); question 2.1., option e) and f); question 2.2., options c), d), e) and f); question 2.3, option d); question 3.1., options f) and g); question 3.2., option b); question 3.3., options c) and d); question 3.6, options c) and d); question 3.7., options d) and f).

research was mainly quantitative resorting to a questionnaire sent by e-mail directed to financial managers of each unit.

The study adds value to the existing literature about USALI's and was made following the research of Faria (2012) and Faria *et al.* (2015) made for the hotel establishments in the Algarve region, adapted to access another relevant region, Madeira Archipelago.

The main findings indicate that USALI's adoption rate is 61% (20 units), where 65% adopts it fully. Its non adoption is mainly due to the satisfaction with the current accounting system. There in no relation with the considered variables (typologies, classification, management status, dimension, sales volume, usage of particular accounting system) and USALI's usage. The main software used in accounting, apart from Excel or equivalent, is Oracle and SAP. The major decision-makers are the owners/shareholders (who decided in 90% about USALI's adoption), the financial manager/controller (who decided 64% of the time, about the current accounting system) and the head office/management company (24% of decision-making on the choice of the current accounting system).

As for the findings that describe the sample, there are mainly hotels (45%) and resorts (24%), mostly 4-stars units (67%). The management status is essentially independent (67%). The average number of rooms, beds and employees are more and less the same for both 4 and 5-stars hotel units. In terms of size, the sample as shown to be typically large (39%) and medium (33%). The volume of sales is usually larger than 5M€ and the revenue mix is mainly composed by Accommodation (58%) and F&B (36%) activities. The cost structure is usually up to 35% for indirect costs, also verified by Kosarkoska and Mircheska (2012), and more than 75% for direct costs. The main accounting systems used are SNC (55%) and IAS/IFRS (36%). The majority of the sample operating period is all year, which shows a low impact of seasonality in the region, in contrast to Algarve region analysed by Faria *et al.* (2015).

The faced limitations are the non consideration of self-developed software by hotels that Faria *et al.* (2015) reports, the reduced sample (33 units) (a larger number of units could guarantee a higher sample's representation of the universe, with higher accuracy and a lower level of error) and a weak conclusion about the usage of the Excel as an alternative or complementary to other software packages. This research did not investigate the use of other management accounting techniques, such as budgets, which is a very common technique in the lodging industry and is analysed by Faria (2012). New studies may eventually disregard some untaken answer options from the new questionnaire.

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